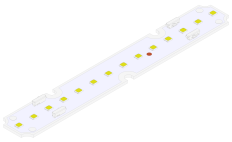


Fortimo Strip PR LV6

Advance Fortimo LED Strip PR LV6 modules are an ideal choice for high-performance architectural and indoor luminaires. Designed for high efficiency, offered in variable lengths, allowing for daisy chaining, and incorporating tight Vf binning to create a high-quality base for your luminaire designs.

Key features and benefits

Features:

- High flux density of up to 2000 lm per foot
- Narrow width of only 20mm
- High lumen maintenance (TM21) of L90 36,000 hours
- 3 SDCM color consistency
- Tight Vf binning enables longer daisy chaining

Benefits:

- High energy efficacy and long lifetime provide optimized total cost of ownership
- Slim width and Zhaga compliant form factor provide excellent design-in options and assembly
- High quality and warm color temperatures of light enables new application areas like hospitality
- 5-year limited system warranty with Advance Xitanium LED drivers
- Specifications enable DLC Premium category

Application:

- Retail
- Hospitality
- Office

Ordering data

Commercial product name	12NC	Box quantity
FO Strip PR 5.5in 550lm 830 LV6	9290 027 51713	120
FO Strip PR 5.5in 550lm 835 LV6	9290 027 51813	120
FO Strip PR 5.5in 550lm 840 LV6	9290 027 51913	120
FO Strip PR 5.5in 550lm 850 LV6	9290 027 52013	120

Drive currents

Parameter	Nominal*	Life**	Max***	Unit
FO Strip PR 5.5in 550lm 8xx LV6	77	180	200	mA

Module temperatures

Parameter	Nominal*	Life**	Max***	Unit
T_c (case temperature at T_c point)	45	85	90	°C

* Nominal value at which typical performance is specified

** Value at which life time is specified

*** Maximum value for safe operation, do not operate above this value

Suggested maximum current at elevated ambient

Setting	1	2	3	4	Unit
Luminaire maximum ambient	35	45	55	65	°C
Suggested maximum current*	180	160	125	95	mA

* Drive current that may be possible at the reference external ambient temperature. The maximum suggested current given is for a typical non-lensed luminaire design with good thermal transfer capability. Use of a lensed luminaire or luminaires with non-optimal thermal characteristics will require a further current reduction to meet the same maximum ambient temperature. The current suggestion is based on the module Tc-life and thermal testing must be used to verify Tc-life is never exceeded for your specific luminaire. It may be necessary to adjust the final current value in order to meet the Tc-life rating of the module.

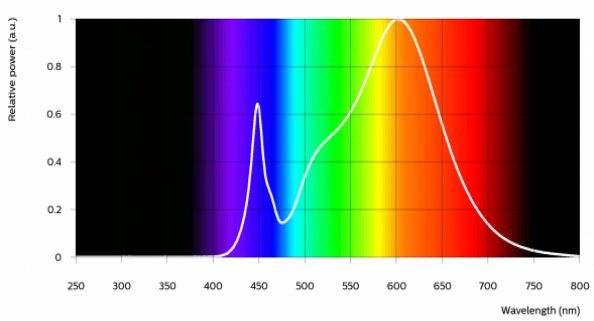
Optical characteristics - table per color (CCT)

FO Strip PR 5.5in 550lm 830 LV6

Parameter	Min	Typ	Max	Unit
Luminous flux	490	530	570	lm
Efficacy	162	181		lm/W
Correlated color temperature (CCT)		3000		K
Color consistency			3	SDCM
CRI	80			
R9	0			

Measurement precision ± 5% for the flux data and ± 6% for the efficacy data. Measurement precision for color coordinates ± 0.005. Measurement precision for CRI ± 1.5 and R9 ± 3.

Operation point	830	lm	lm/W
80% I-nom 62mA	Tc 25 °C	440	188
	Tc-nom 45 °C	430	185
	Tc-life 85 °C	400	176
I-nom 77mA	Tc 25 °C	540	184
	Tc-nom 45 °C	530	181
	Tc-life 85 °C	500	173
I-life 180mA	Tc 25 °C	1190	165
	Tc-nom 45 °C	1160	162
	Tc-life 85 °C	1090	154

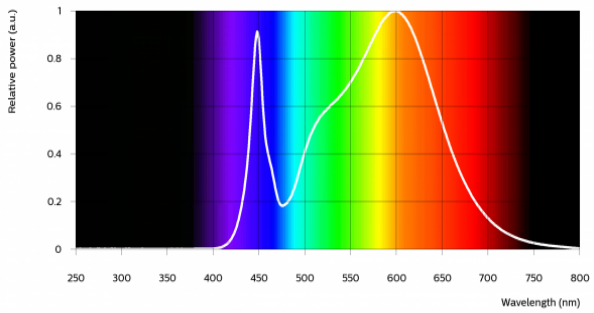


FO Strip PR 5.5in 550lm 835 LV6

Parameter	Min	Typ	Max	Unit
Luminous flux	510	550	590	lm
Efficacy	169	188		lm/W
Correlated color temperature (CCT)		3500		K
Color consistency			3	SDCM
CRI	80			
R9	0			

Measurement precision ± 5% for the flux data and ± 6% for the efficacy data. Measurement precision for color coordinates ± 0.005. Measurement precision for CRI ± 1.5 and R9 ± 3.

Operation point	835	lm	lm/W
80% I-nom 62mA	Tc 25 °C	460	196
	Tc-nom 45 °C	450	192
	Tc-life 85 °C	420	183
I-nom 77mA	Tc 25 °C	560	192
	Tc-nom 45 °C	550	188
	Tc-life 85 °C	520	179
I-life 180mA	Tc 25 °C	1240	171
	Tc-nom 45 °C	1210	168
	Tc-life 85 °C	1130	159

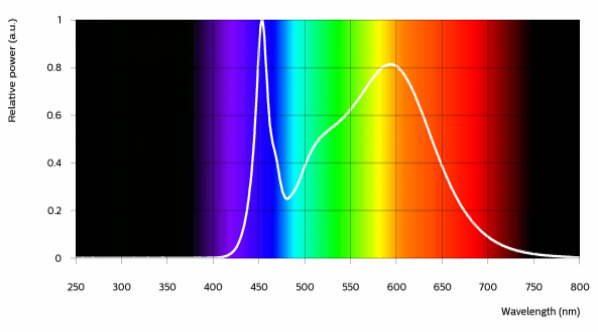


FO Strip PR 5.5in 550lm 840 LV6

Parameter	Min	Typ	Max	Unit
Luminous flux	520	560	600	lm
Efficacy	172	191		lm/W
Correlated color temperature (CCT)		4000		K
Color consistency			3	SDCM
CRI	80			
R9	0			

Measurement precision ± 5% for the flux data and ± 6% for the efficacy data. Measurement precision for color coordinates ± 0.005. Measurement precision for CRI ± 1.5 and R9 ± 3.

Operation point	840	lm	lm/W
80% I-nom 62mA	Tc 25 °C	470	199
	Tc-nom 45 °C	450	195
	Tc-life 85 °C	430	186
I-nom 77mA	Tc 25 °C	580	195
	Tc-nom 45 °C	560	191
	Tc-life 85 °C	530	182
I-life 180mA	Tc 25 °C	1260	174
	Tc-nom 45 °C	1230	171
	Tc-life 85 °C	1150	162

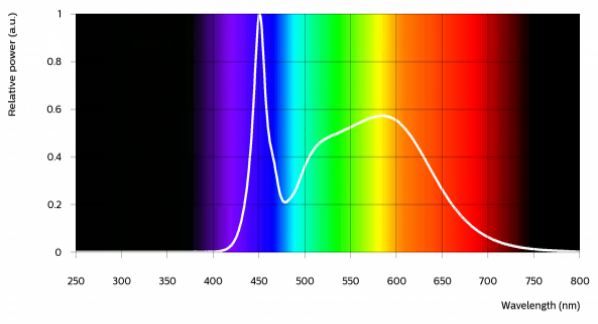


FO Strip PR 5.5in 550lm 850 LV6

Parameter	Min	Typ	Max	Unit
Luminous flux	520	560	600	lm
Efficacy	172	191		lm/W
Correlated color temperature (CCT)		5000		K
Color consistency			3	SDCM
CRI	80			
R9	0			

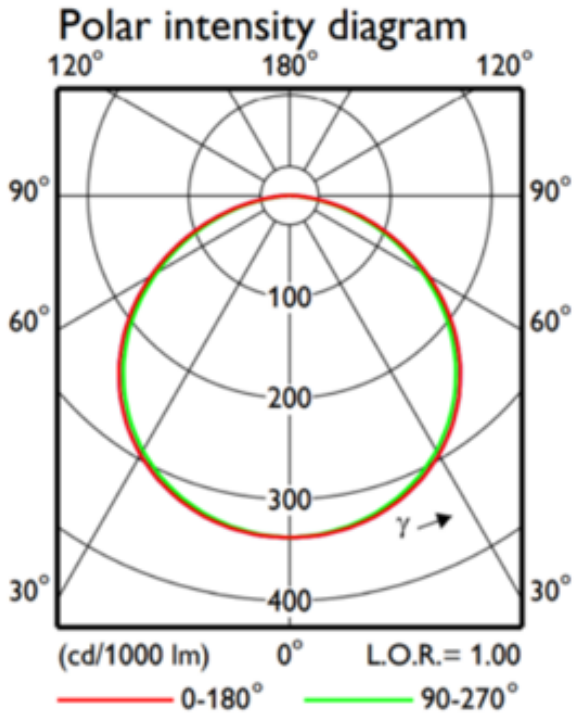
Measurement precision ± 5% for the flux data and ± 6% for the efficacy data. Measurement precision for color coordinates ± 0.005. Measurement precision for CRI ± 1.5 and R9 ± 3.

Operation point	850	lm	lm/W
80% I-nom 62mA	Tc 25 °C	470	199
	Tc-nom 45 °C	450	195
	Tc-life 85 °C	430	186
I-nom 77mA	Tc 25 °C	580	195
	Tc-nom 45 °C	560	191
	Tc-life 85 °C	530	182
I-life 180mA	Tc 25 °C	1260	174
	Tc-nom 45 °C	1230	171
	Tc-life 85 °C	1150	162



Beam shape

The LED module has a Lambertian light distribution.



Electrical characteristics

Parameter	Min	Typ	Max	Unit
Forward voltage	37.5	38.0	38.5	V
Power consumption		2.93		W
Number of modules in series per chain			1	

Measurement precision for Vf +/- 3%. Measurement precision for power +/- 3.3%.

System chain limits for Same Length modules

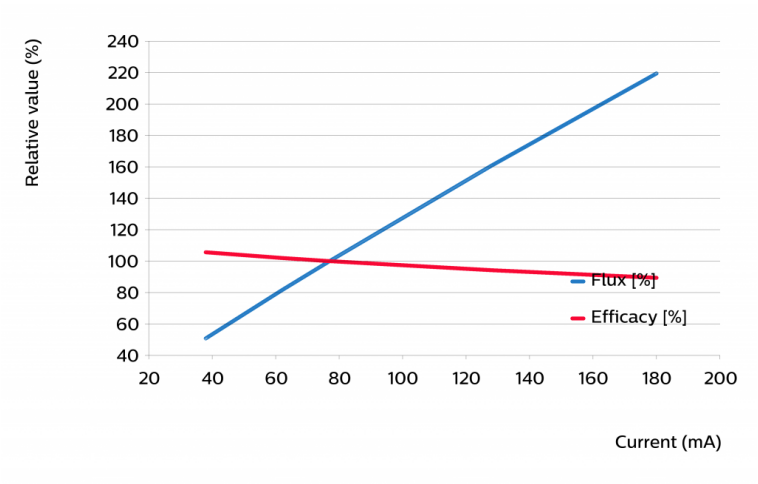
Total length (in)	Total current limit (mA)
44	1440
66	2060
88	1540

Please review the design-in guide or contact the Design-in team for further information.

Tuning information

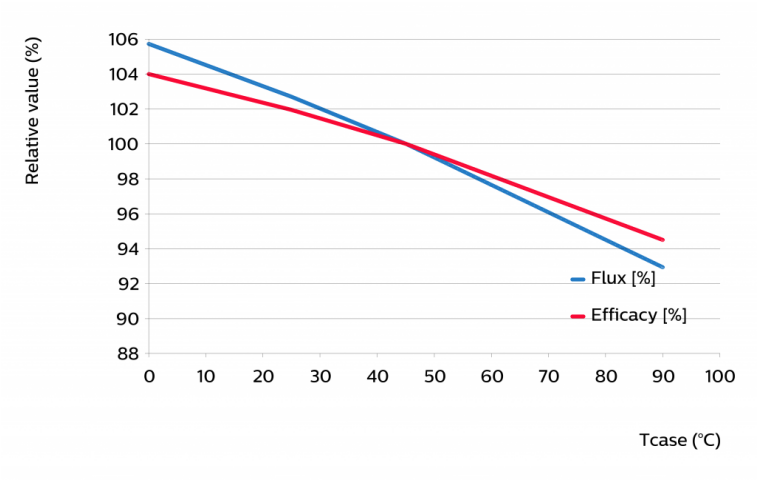
Flux and efficacy versus current (at Tc nominal)

I [mA]	Flux [%]	Efficacy [%]
180	219	89
128	161	94
77	100	100
62	81	102
38	51	106



Flux and efficacy versus temperature at Tc (at I nominal)

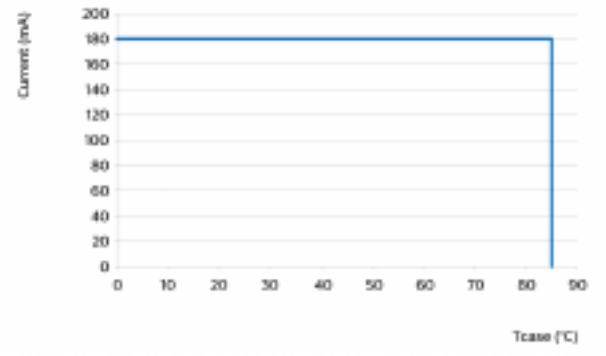
Tc [°C]	Flux [%]	Efficacy [%]
90	93	94
45	100	100
25	103	102
0	106	104



Lumen maintenance

Operation point	Lumen maintenance x 1000 hours	L70 B50	L80 B50	L90 B50
80% I-nom 62mA	Ts nom 45°C	>60	>60	>36
	Ts 70°C	>60	>60	>36
	Ts-Ilife 85°C	>60	>60	>36
I-nom 77mA	Ts nom 45°C	>60	>60	>36
	Ts 70°C	>60	>60	>36
	Ts-Ilife 85°C	>60	>60	>36
I-life 180mA	Ts nom 45°C	>60	>60	>36
	Ts 70°C	>60	>60	>36
	Ts-Ilife 85°C	>60	>60	>36

Performance Window



Thermal switching table

Warranted number of full thermal product cycles at 25°C ambient temperature

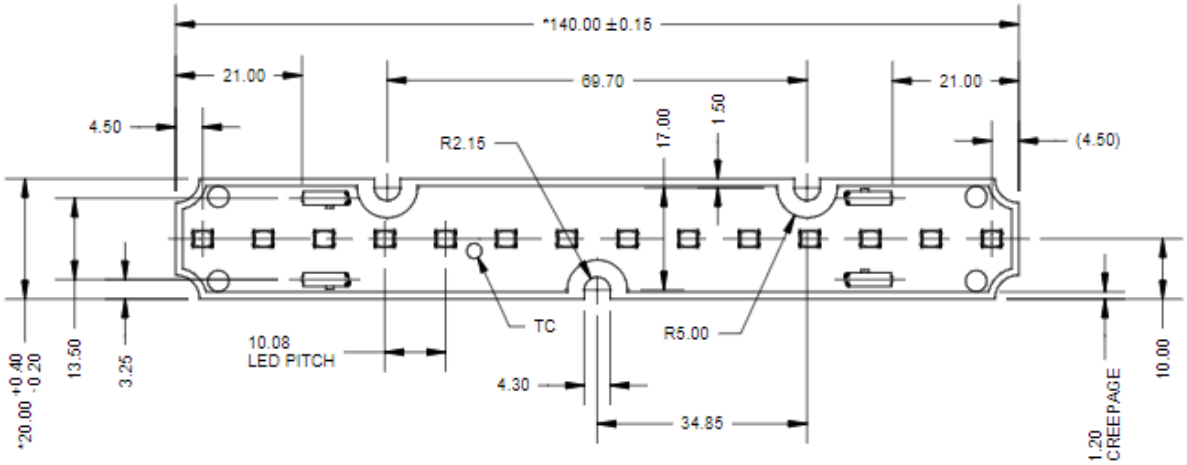
Case Temperature – Tc [°C]	Amount of Cycles
45 (or less)	>100,000
55	>100,000
65	>100,000
75	77,000
85	38,000
90	26,000

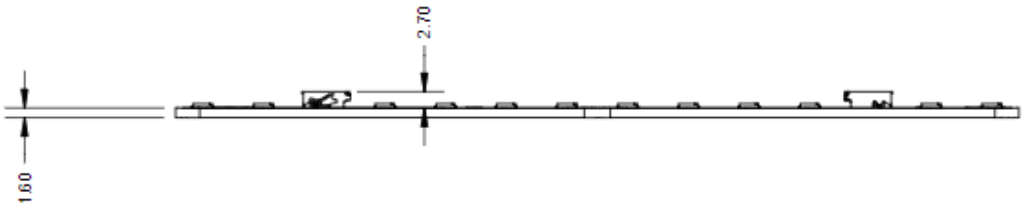
Wiring

Specification item	Value	Unit	Condition
Input wire cross-section	0.25...0.75	mm^2	solid, stranded
	18...24	AWG	solid, stranded
Input wire strip length	7.5...9.5	mm	

Mechanical characteristics

Parameter	Min	Typ	Max	Unit
Length	139.8	140	140.2	mm
Width	19.85	20	20.15	mm
Height PCB	1.4	1.6	1.8	mm
Height total		4.3		mm
Warpage (IPC-TM-650)			0.75	%





Absolute ratings

Parameter	Min	Max	Unit
Current through the LED module (I-max)		200	mA
Case temperature (Tc-max)		90	°C
ESD (direct contact)	8		kV
Working voltage		60	V_{dc}
Ambient temperature	-40		°C

Surge protection of the module must be provided by the driver or other components. Advance Xitanium and Certadrive drivers have built in protection circuitry and will protect the module up to the specified driver surge rating. When using third party drivers testing or confirmation from manufacturer is suggested to ensure adequate module protection.

Application information

Certificates and Standards
UL 8750

Environmental
RoHS/REACH

Application	
IP rating	No IP rating
Overheating protection	No protection
Luminaire class ANSI	UL Class 2
Dimming	Yes

There cannot be any ice/fog/mist on any part of the module surface during the application at -40°C.

Notes

View limited warranty at www.signify.com/warranties for details and restrictions.

Signify North America Corporation
200 Franklin Square Drive,
Somerset, NJ 08873
Telephone 855-486-2216

Signify Canada Ltd.
281 Hillmount Road,
Markham, ON
Canada L6C 2S3
Telephone 800-668-9008